

IN THE CLAIMS

1. (currently amended) A coated low density polymeric foam comprising:
a flexible, low density polymeric foam substrate having a water based coating, the
coating comprising a prepolymer, a monomer, a catalyst, and a graft initiator, and a flexidizing
agent comprising a latex.
2. (original) The coated low density polymeric foam of claim 1, wherein the low
density polymeric foam substrate has a density of up to about 10 lbs/ft.³
3. (previously amended) The coated polymeric foam of claim 1, wherein the low
density polymeric foam is formed from the group consisting of polyvinyl chloride, acrylo nitrile
butadiene rubber, styrene butadiene rubber, ethylene-propylene-diene rubber, polychloroprene,
polyethylene, polypropylene, co-polymers of ethylene, co-polymers of propylene and
combinations thereof.
4. (canceled)
5. (canceled)
6. (original) The coated low density polymeric foam of claim 1, wherein the graft
initiator is selected from the group consisting of ferric ions, silver oxide and silver particles.

7. (original) The coated low density polymeric foam of claim 1, wherein the graft initiator is selected from the group consisting of ferrous ammonium sulfate and silver nitrate.
8. (original) The coated low density polymeric foam of claim 1, further including a redox catalyst.
9. (original) The coated low density polymeric foam of claim 1, wherein the catalyst comprises a peroxide.
10. (original) The coated low density polymeric foam of claim 1, further comprising a UV inhibitor.
11. (original) The coated low density polymeric foam of claim 1, wherein the monomer is a urethane acrylate.
12. (original) The coated low density polymeric foam of claim 1, wherein the coating is water based.
13. (original) The coated low density polymeric foam of claim 1, wherein the prepolymer comprises a urethane.
14. (original) The coated low density polymeric foam of claim 1, wherein the coating has a thickness of between about 10 microns and about 500 microns.

15. (original) A method for manufacturing a coated polymeric low density foam comprising:

providing a polymeric low density foam substrate;

mixing together a prepolymer, a monomer, a catalyst, a graft initiator and water to form a coating; and

applying the coating to the low density foam substrate.

16. (original) The method of claim 15, further including curing the coating on the low density polymeric foam at ambient temperatures.

17. (original) The method of claim 15, further including curing the coating on the low density polymeric foam at elevated temperatures.

18. (original) The method of claim 15, wherein the step of applying the coating is selected from the group consisting of spraying, dipping, rolling and sponging the coating onto the substrate.

19. (original) The method of claim 15, wherein the low density polymeric foam substrate has a density of up to about 10 lbs/ft.³

20. (original) The method of claim 15, wherein the low density polymeric foam is formed from the group consisting of polyvinyl chloride, acrylo nitrile butadiene rubber, styrene

butadiene rubber, ethylene-propylene-diene rubber, polychloroprene, polyethylene, polypropylene, co-polymers of ethylene, co-polymers of propylene and combinations thereof.

21. (original) The method of claim 15, further comprising adding a flexidizing agent to the coating.

22. (original) The method of claim 21, wherein the flexidizing agent comprises a latex.

23. (original) The method of claim 15, wherein the graft initiator is selected from the group consisting of ferric ions, silver oxide and silver particles.

24. (original) The method of claim 15, wherein the graft initiator is selected from the group consisting of ferrous ammonium sulfate and silver nitrate.

25. (original) The method of claim 15, further including adding a redox catalyst to the coating.

26. (original) The method of claim 15, wherein the catalyst comprises a peroxide.

27. (original) The method of claim 15, further including adding a UV inhibitor to the coating.

28. (original) The method of claim 15, wherein the monomer is a urethane acrylate.

29. (original) The method of claim 15, wherein the prepolymer is water dispersible.

30. (original) The method of claim 15, wherein the prepolymer comprises a urethane.

31. (currently amended) A coated polymeric foam comprising:

a flexible, polymeric foam substrate having a water-based coating, the coating comprising a water dispersible prepolymer, a monomer, a catalyst, and a graft initiator, and a flexidizing agent comprising a latex.

32. (original) The coated polymeric foam of claim 31, where in the polymeric foam substrate has a density of up to about 10 lbs/ft.³

33. (previously amended) The coated polymeric foam of claim 31, wherein the polymeric foam is formed from the group consisting of polyvinyl chloride, acrylo nitrile butadiene rubber, styrene butadiene rubber, ethylene-propylene-diene rubber, polychloroprene, polyethylene, polypropylene, co-polymers of ethylene, co-polymers of propylene and combinations thereof.

34. (original) The coated polymeric foam of claim 31, further comprising a flexidizing agent.

35. (previously amended) The coated polymeric foam of claim 31, wherein the graft initiator is selected from the group consisting of ferrous ammonium sulfate and silver nitrate.

36. (original) The coated polymeric foam of claim 31, wherein the catalyst comprises a peroxide.

37. (original) The coated polymeric foam of claim 31, further comprising a UV inhibitor.

38. (original) The coated polymeric foam of claim 31, wherein the monomer is a urethane acrylate.

39. (original) The coated polymeric foam of claim 31, wherein the prepolymer comprises a urethane.

40. (original) A method for manufacturing a coated polymeric foam comprising:
providing a polymeric foam substrate;
mixing together a water dispersible prepolymer, a monomer, a catalyst, a graft initiator and water to form a coating; and
applying the coating to the low density foam substrate.

41. (original) The method of claim 40, further including curing the coating on the polymeric foam at ambient conditions.

42. (original) The method of claim 40, further including curing the coating on the polymeric foam at elevated temperatures.

43. (original) The method of claim 40, wherein the step of applying the coating is selected from the group consisting of spraying, dipping, rolling and sponging the coating onto the substrate.

44. (original) The method of claim 40, wherein the polymeric foam substrate has a density of up to about 10 lbs/ft.³

REMARKS

Applicants would like to thank the Examiner for discussing the present case with Applicants' representative on June 18, 2003. During the conversation, the Examiner stated that the *Horowitz* reference would be overcome by an amendment to clarify the coating as a water-base coating with respect to claim 31. Furthermore, the Examiner suggested that Applicants include the limitations from claims 4 and 5, to the independent claims, along with arguments stating that the lack of motivation for combining the references of *Sanduja*, *Kreiser*, and *Mao*.

In response to the Examiner Interview, Applicants have amended claim 31 to include that the coating is water-based. Additionally, the limitations of claims 4 and 5 reciting that the coating includes flexidizing agent having a latex have been incorporated into independent claims 1 and 31. Furthermore, claims 4 and 5 have been deleted, such that claims 1 – 3, 6 – 14, and 31 – 39 are currently pending.